

ABSTRACT

Each control portion for controlling each friction element includes a switch valve and pressure control valve such that hydraulic pressure supplied to the friction element is fully controlled, and a control portion for controlling a friction element that is operated both at low and high speeds includes a switch valve that senses an operation of a friction member cooperatively with the friction element at the high speed such that the friction member receives different hydraulic pressure at low and high speeds. A plurality of fail-safe valves is included for enhancement of a fail-safe function of an automatic transmission.

5